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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,258	05/11/2006	Wolf-Dieter Wichmann	5000.P0098US	6585
23474 7590 04/15/2009 FLYNN THIEL BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631				
EXAMINER				
MCGRAW, TREVOR EDWIN				
ART UNIT		PAPER NUMBER		
3752				
MAIL DATE		DELIVERY MODE		
04/15/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/579,258

**Applicant(s)**

WICHMANN, WOLF-DIETER

**Examiner**

Trevor E. McGraw

**Art Unit**

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☒ Claim(s) 2-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaplinsky (US 5,135,174) in view of Bahr (US 7,066,186).

In regard to Claims 7-11, Chaplinsky teaches a sprayer for spraying agricultural liquids (apparatus system shown in Figure 1) with a carrier liquid tank (1), a carrier liquid pump (5), several spraying nozzles (21, 22, 23) and associated nozzle holders (22", "23" and "24" are held in "P") for connecting the spraying nozzles to a carrier liquid line (9,13), at least one active ingredient tank (2,3,4) and several metering pumps (6,7,8) for

delivering active ingredients connectable to the active ingredient tank (2,3,4) characterized in that with each nozzle (22,23,24) holder ("22", "23" and "24" are held in "P") is associated with at least one metering pump (6,7,8) which is in flow connection with the nozzle holder (22", "23" and "24" are held in "P").

Chaplinsky also teaches where a control unit (32,33,34) is provided to calculate the active ingredient quantity to be metered in control pulses, the metering pumps (5,6,7,8) have a clearly defined delivery for each working stroke and can be driven to corresponding control pulses. The control unit (32,33,34) also has a number of control pulses as a function of a predetermined set value for an active substance concentration and a carrier liquid quantity instantaneously delivered by the carrier liquid pump (see column 3, line 31 thru column 4, line 21) and the metering pumps 6,7,8) can be driven in hydraulic pulses (pulses of content from tanks "2", "3" and "4").

Chaplinsky further teaches where the nozzle holders and the metering pumps are connected in series to the active ingredient line and are arranged in several partial widths and the partial widths are associated with active ingredient supply line and the sprayer has a mixing chamber and at least one metering pump.

Chaplinsky substantially teaches the present invention with the exception of the active ingredient supply line being provided with a compressed air connection so that during return operation active ingredient can be forced back into the active ingredient tank.

However, Bahr teaches that it is known to have an active supply line being provided with a compressed air connection so that during a return operation, an active

ingredient or substance (liquid paint in the case of Knight) can be forced back into the active ingredient tank with the aid of compressed air. It would have been obvious to one having ordinary skill in the art at the time the present invention was made to provide the active ingredient line of the spraying system taught by Chaplinsky with the compressed air line (recirculation line ) of Bahr in order to provide a manner in which fluid can be conserved and accurate spraying can occur.

The combination of Chaplinsky in view of Bahr would permit the compressed air connection to be provided downstream of the final metering pump in the active ingredient supply direction and the partial width of the active ingredient supply line with one compressed air connection (limitations of claims 8 and 9).

#### ***Allowable Subject Matter***

Claims 2-6 are tentatively allowed over the prior art of record.

#### ***Response to Arguments***

#### **Rejection under 35 USC § 103**

Applicant's arguments filed 03/16/2009 have been fully considered but are moot in view of a new grounds of rejection to Chaplinsky in view of Knight.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gill (US 4,925,096).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trevor McGraw whose telephone number is (571) 272-7375. The examiner can normally be reached on Monday-Friday (2nd & 4th Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T. E. M./

Examiner, Art Unit 3752

/Dinh Q Nguyen/

Primary Examiner, Art Unit 3752